

## CLAIMS:

1. A rare-gas low-pressure discharge lamp for generating ultraviolet light, in particular for cosmetic or therapeutic purposes, with a discharge vessel which is filled with a rare gas and is at least partly transparent to UV light, characterized in that the discharge vessel is at least partly coated with a phosphor which radiates UV light when excited by UV excitation radiation produced in the discharge vessel.
2. A lamp as claimed in claim 1, characterized in that the excitation radiation produced in the discharge vessel has wavelengths in the VUV range.
- 10 ③ <sup>object</sup> A lamp as claimed in claim 1 or 2, characterized in that the discharge vessel is filled with xenon or neon.
- object multiple claim*
- 15 ④ → 12 A lamp as claimed in any one of the claims 1 to 3, characterized in that the discharge vessel is at least partly made of a glass, preferably of a glass having a transmissivity of 20 to 70% for light of 312.6 nm wavelength.
- 20 5. A lamp as claimed in any one of the claims 1 to 4, characterized in that the phosphor is formed such that less than 1% of the light radiated thereby under the excitation of an excitation radiation produced in the discharge vessel has wavelengths below 290 nm.
- 25 6. A lamp as claimed in any one of the claims 1 to 5, characterized in that the phosphor is formed such that between 1% and 10% of the light radiated thereby upon excitation with an excitation radiation produced in the discharge vessel has wavelengths between 290 and 320 nm.
7. A lamp as claimed in any one of the claims 1 to 6, characterized in that the phosphor is formed such that less than 5% of the light radiated thereby upon excitation by an excitation radiation produced in the discharge vessel has wavelengths above 400 nm.

8. A lamp as claimed in any one of the claims 1 to 7, characterized in that the phosphor comprises at least one luminescent material, preferably a combination of luminescent materials, chosen from the following group of luminescent materials: BaSi<sub>2</sub>O<sub>5</sub>:Pb (BSP), CeMgAl<sub>11</sub>O<sub>19</sub> (CAM), LaPO<sub>4</sub>:Ce (LAP), SrB<sub>4</sub>O<sub>7</sub>:Eu (SBE),  
5 (SR,Ba)MgSi<sub>2</sub>O<sub>7</sub>:Pb (SMS).
9. A lamp as claimed in any one of the claims 1 to 8, characterized in that a UV-light reflecting layer, in particular a layer comprising MgO and/or Al<sub>2</sub>O<sub>3</sub>, is provided on portions of the discharge vessel.
10. A lamp as claimed in any one of the claims 1 to 9, characterized in that the discharge vessel is not tubular in shape.
11. A lamp as claimed in claim 10, characterized in that two of the three  
15 dimensions of the discharge vessel, in particular its length and width, are substantially greater than its third dimension, in particular its thickness.
12. A lamp as claimed in claim 10 or 11, characterized in that the discharge vessel is adapted to the contours of a surface to be irradiated with the lamp.
13. A method of manufacturing a rare-gas low-pressure discharge lamp for generating ultraviolet light, in particular for cosmetic or therapeutic purposes, with a discharge vessel filled with rare gas and at least partly transparent to UV light, characterized in that the discharge vessel is at least partly coated with a phosphor which radiates UV light  
25 when excited by excitation radiation produced in the discharge vessel.
14. A method as claimed in claim 13, characterized in that
- a suspension of the phosphor to be applied is prepared on the basis of butyl acetate with nitrocellulose as a binder,
  - 30 - the suspension is provided on the inner side of the discharge vessel in a flush coating process so as to have a coating weight of between 2 and 6 mg/cm<sup>2</sup>,
  - the binder is baked out in a heating cycle with top temperatures between 500 and 600 °C,

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- the discharge vessel is sealed and filled with rare gas, in particular with xenon or neon with a pressure of between 200 and 300 mbar, and
- electrodes are applied to the outer side of the discharge vessel.

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